UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,577	10/31/2003	Robert Hale Grant	233-605-USP	1563

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HENSLEY KIM & HOLZER, LLC
1660 LINCOLN STREET
SUITE 3000
DENVER, CO 80264

EXAMINER
FORD, GRANT M

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/699,577	GRANT ET AL.
	Examiner	**Art Unit**	
	GRANT FORD	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *12 December 2007*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *2-5,7,9,11-14,16,18 and 20-31* is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *2-5,7,9,11-14,16,18 and 20-31* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a) ☐ All   b) ☐ Some * c) ☐ None of:
       1. ☐ Certified copies of the priority documents have been received.
       2. ☐ Certified copies of the priority documents have been received in Application No. _____.
       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 12/12/2007 have been fully considered but they are

not persuasive. Regarding Applicant's argument that - "Green states at paragraph

[0090] that "device discovery and virtual mapping is preferably done before any zoning

takes place. Nowhere in Green is there any further description of a discovery service.

There is no indication that one of the networks provides a discovery service on behalf of

the second network much less how such a service could be implemented across

networks." The Examiner disagrees. The prior art of Green at least discloses further

description of a discovery service at Para. 0040-0042. Nevertheless, in view of

Applicant's remaining arguments, the Examiner has presented a new grounds of

rejection as outlined below.

Drawings

2.   The drawings are objected to under 37 CFR 1.83(a). The drawings must show

every feature of the invention specified in the claims. Therefore, the ceasing the

provision of at least one service in favor of allowing the second network to provide the at

least one service of independent claim 2 and ceasing the implementation of the at least

one service in the gateway in favor of allowing the second network to provide the at

least one service must be shown or the feature(s) canceled from the claim(s). No new

matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4.   Claim 2 recites the limitation "the provision". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 2-4,7,11-13,16,20-21,and 26-27 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Czeiger et al. (US 6,683,883), hereinafter referred to as

Czeiger in view of Nicolson (US 7,249,173), hereinafter referred to as Nicolson.

        a.   As per claims 2 and 11, Czeiger discloses a gateway comprising:

                a first port coupled to a first network and a second port coupled to a

second network (Figures 1-4, Col 5 lines 21-26); The Examiner additionally notes that a

gateway interconnects disparate networks and that in order to perform any gateway

functionality, by definition must include a first port coupled to a first network and a

second port coupled to a second network.

                processes implemented within the gateway for implementing at least one

service on behalf of the second network (Col 2 lines 10-33).However, Czeiger fails to

explicitly disclose wherein the gateway implements processes which determine when

the at least one service is implemented in the second network or ceasing provision of at

least one service in favor of allowing the second network to provide the at least one

service.

Nicolson teaches processes implemented in a gateway for identifying at least one service provided by the first network that is not provided by the second network (Col 2 line 66 through Col 3 line 9, Col 4 lines 7-16, Col 5 lines 51-58);

processes implemented within the gateway for determining when the at least one service is implemented in the second network (Col 4 lines 1-16); and

processes implemented within the gateway for ceasing a provision of the at least one service in favor of allowing the second network to provide the at least one service (Col 4 lines 17-30 – see overriding connection discovery, Col 5 line 58 through Col 6 line 30 – see defined discovery protocol parameters).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of determining when the service is implemented in the second network as well as ceasing a provision of a service in favor of allowing a second network to provide the service with the ISCSI-FCP gateway of Czeiger. One of ordinary skill in the art would have done so for the purpose of utilizing iSNS and SLP services to determine node information and allowing for user defined protocol parameters (Col 2 line 66 through Col 3 line 9, Col 5 line 58 through Col 6 line 30).

b.   As per claims 3,12,20, and 26, Czeiger discloses wherein at least one of the networks comprises a fibre channel network (Col 2 lines 47-57).

c.   As per claims 4,13,21 and 27, Czeiger discloses wherein at least one of the networks comprises an Internet Protocol network (Col 2 lines 49-57).

d.   As per claims 7 and 16, Czeiger discloses a gateway comprising:

a first port coupled to a first network and a second port coupled to a second network (Figures 1-4, Col 5 lines 21-26); The Examiner additionally notes that a gateway interconnects disparate networks and that in order to perform any gateway functionality, by definition must include a first port coupled to a first network and a second port coupled to a second network.

processes implemented within the gateway for implementing at least one service on behalf of the second network (Col 2 lines 10-33).However, Czeiger fails to explicitly disclose wherein the gateway implements processes which determine when the at least one service is implemented in the second network or wherein the at least one service provided by the first network comprises a discovery service and the processes implemented within the gateway comprise a discovery service implemented on behalf of the second network.

Nicolson teaches processes implemented in a gateway for identifying at least one service provided by the first network that is not provided by the second network (Col 2 line 66 through Col 3 line 9, Col 4 lines 7-16, Col 5 lines 51-58); and

wherein the at least one service provided by the first network comprises a discovery service and the processes implemented within the gateway comprise a discovery service implemented on behalf of the second network (Col 3 line 32 through Col 4 line 16).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of determining when the service is implemented in the second network as well as a discovery service and the processes

implemented within the gateway comprising a discovery service implemented on behalf

of the second network with the ISCSI-FCP gateway of Czeiger. One of ordinary skill in

the art would have done so for the purpose of utilizing iSNS and SLP services to

determine node information and providing multiple node discovery protocols to present

a unified view of the discovery process to the data processing system (Col 1 lines 46-

55, Col 2 line 66 through Col 3 line 9, Col 5 line 58 through Col 6 line 30).

7.   Claims 5,14,22,and 28 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Czeiger and Nicolson in view of Baldwin et al. (US 2003/0204580),

hereinafter referred to as Baldwin.

        a.   As per claims 5,14,22, and 28, Czeiger discloses wherein at least one of

the networks comprises a storage-level network (Col. 4 line 46 through Col. 5 line 9).

However, Czeiger fails to explicitly disclose that the storage-level network is a SAN.

        Baldwin teaches the use of a SAN (Para. 0009). It would have been

obvious to one having ordinary skill in the art at the time the invention was made to

incorporate the use of a SAN with the ISCSI-FCP gateway of Czeiger. One of ordinary

skill in the art would have done so for the purpose of allowing direct access to storage

devices (Para. 0005).

8.   Claims 9,23-24,18,and 29-30 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Czeiger and Nicolson in view of *IP SANs: A Guide to iSCSI, iFCP,*

and FCIP Protocols for Storage Area Networks, hereinafter referred to as Clark.

        a.   As per claims 9 and 18, Czeiger discloses a gateway comprising:

                a first port coupled to a first network and a second port coupled to a

second network (Figures 1-4, Col 5 lines 21-26); The Examiner additionally notes that a

gateway interconnects disparate networks and that in order to perform any gateway

functionality, by definition must include a first port coupled to a first network and a

second port coupled to a second network.

                processes implemented within the gateway for implementing at least one

service on behalf of the second network (Col 2 lines 10-33).However, Czeiger fails to

explicitly disclose wherein the gateway implements processes which determine when

the at least one service is implemented in the second network or wherein the at least

one service provided by the first network comprises a security service and the

processes implemented within the gateway comprise a security service implemented on

behalf of the second network.

                Nicolson teaches processes implemented in a gateway for identifying at

least one service provided by the first network that is not provided by the second

network (Col 2 line 66 through Col 3 line 9, Col 4 lines 7-16, Col 5 lines 51-58). It would

have been obvious to one having ordinary skill in the art at the time the invention was

made to incorporate the use of determining when the service is implemented in the

second network with the ISCSI-FCP gateway of Czeiger. One of ordinary skill in the art

would have done so for the purpose of utilizing iSNS and SLP services to determine

node information (Col 1 lines 46-55, Col 2 line 66 through Col 3 line 9, Col 5 line 58

through Col 6 line 30).

Clark teaches the use of a security service by a first network which is

implemented between an initiator and a target (Section 9.2.4 – iSNS Security). It would

have been obvious to one having ordinary skill in the art at the time the invention was

made to incorporate the use of a security service with a first network at an iSNS server

with the ISCSI-FCP gateway of Czeiger. One of ordinary skill in the art at the time the

invention was made would have done so for the purpose of providing means for

authentication between initiator and target devices to provide secure communications

between them (Section 9.2.4 – iSNS Security).

b.   As per claims 23 and 29, Czeiger discloses wherein at least one of the

networks comprises a fibre channel network (Col 2 lines 47-57).

c.   As per claims 24 and 30, Czeiger discloses wherein at least one of the

networks comprises an Internet Protocol network (Col 2 lines 49-57).

9.   Claims 25 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Czeiger, Nicolson, and Clark in view of Baldwin.

a.   As per claims 25 and 31, Czeiger discloses wherein at least one of the

networks comprises a storage-level network (Col. 4 line 46 through Col. 5 line 9).

However, Czeiger fails to explicitly disclose that the storage-level network is a SAN.

Baldwin teaches the use of a SAN (Para. 0009). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of a SAN with the ISCSI-FCP gateway of Czeiger. One of ordinary skill in the art would have done so for the purpose of allowing direct access to storage devices (Para. 0005).

Conclusion

10.   The references cited but not relied upon are considered pertinent to the instant invention –

Internet Storage Name Service (iSNS) teaches the framework of iSNS for discovery and management of iSCSI and Fibre Channel storage devices in an enterprise-scale IP storage network.

Baldwin et al. (US 2003/0204580) teach a method and apparatus for management of mixed protocol storage networks.

Lolayekar et al. (US 6,976,134) teach pooling and provisioning storage resources in a storage network.

Pathak et al. (US 2004/0022254) teach caching remote switch information in a Fibre Channel Switch.

Hufferd et al. (US 2005/0268145) teach a method for recovery from failures in a computing environment.

11.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to GRANT FORD whose telephone number is (571)272-8630. The examiner can normally be reached on 8-5:30 Mon-Thurs alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571)272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Grant Ford/

Examiner, Art Unit 2141

/Andrew Caldwell/
Supervisory Patent Examiner, Art Unit 2142